

REMARKS

The applicants note with appreciation the acknowledgement of the claim for priority under section 119 and the notice that all of the certified copies of the priority documents have been received.

The applicants acknowledge and appreciate receiving a copy of form PTO-1449, on which the examiner has initialed all listed items.

Claims 1 – 17 are pending. Claims 9 – 17 have been added. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

Claims 1 – 8 were rejected under 35 USC 103(a) as being unpatentable over JP 9221013 ('013) in view of US Patent 5,944,393, Sano ("Sano"). The rejection is respectfully traversed for reasons including the following, which are provided by way of example.

As described in the application, the invention is directed to solving the problem "where braking force applied to the left and right front wheels is uniformly increased and braking force applied to the left and right rear wheels is uniformly reduced. Accordingly, although the brake noise is reduce, at the same time a deviation from the optimal distribution of the braking force between the front and the rear becomes excessively large... Therefore, a driver may feel an unpleasant sensation when executing a noise prevention control" (Specification 2, lines 14 – 20.)

According to the claims, e.g., claim 1, the invention is directed to a vehicle brake system which sets target braking force for individual wheels and controls braking force for the individual wheels in accordance with the target braking force. There is provided a noise

detection unit which detects a generation state of a brake noise in the individual wheels. A control unit selects, in accordance with the generation state of the brake noise of the individual wheels detected by the noise detection unit, one of the front and rear wheels where the brake noise is generated on the left side and on the right side as a noise generating wheel; reduces the target braking force for the noise generating wheel by a predetermined amount; and increases the target braking force for one of the front and rear wheels which is other than the noise generating wheel by the predetermined amount. (E.g., claim 1; see also claim 4) Thereby, the vehicle brake system reduces or suppresses the brake noise by controlling the braking force so as to not change the total braking force for the front and rear wheels on one of the right side and the left side. In other words, the distribution of the braking force of the left front and rear wheels is controlled when brake noise is generated at one of the left front and rear wheels without controlling the distribution of the braking force of the right front and rear wheels.

Accordingly, deviation of the braking force from the optimal distribution of the braking force between the front and the rear can be reduced, in comparison to a case when the braking force for either the set of left and right front wheels or the set of left and right rear wheels is increased and the braking force for the other set of wheels is reduced. In operation, when executing a brake control for preventing a brake noise, the driver does not feel the unpleasant sensation due, e.g., to abnormal vehicle behavior. (E.g., specification page 3 line 3 – page 4 line 8.)

Without conceding that '013 discloses any feature of the present invention, '013 is directed to a hydraulic pressure control device for a vehicle brake. According to '013, "when it is judged that the brake sound is generated, the control device ... reduces hydraulic pressures in the front wheel cylinders 20 FL, 20 FR in response to the hydraulic pressure signal of the master

cylinder hydraulic pressure sensor 48, increases the hydraulic pressures of the rear wheel cylinders 20RL, 20RR so as to keep a total braking force as it is.”

The office admits that ‘013 fails to teach or suggest a reduction of pressure in the rear wheels upon noise detection in the front wheels. Sano is cited to attempt to remedy the deficiencies of ‘013.

Sano concerns a turn control apparatus for a vehicle. According to Sano, “the outside front and inside rear wheels viewed in the vehicle turn direction are selected from the vehicle wheels as two target wheels to be controlled. The braking force on one target wheel to be controlled is increased in accordance with the turning condition of the vehicle, while that of the other target wheel to be controlled is decreased.” (Abstract.) Accordingly, the total braking force of the pair of diagonal wheels can be unchanged, however, the distribution of braking force between front and rear wheels and left and right wheels, respectively, can be changed.

The office action asserts that ‘013 in combination with Sano discloses the invention as claimed. To the contrary, ‘013 and/or Sano, alone or combined, fails to teach or suggest the invention, as presently claimed, when the claims are considered as a whole. The Examiner has recognized the deficiencies of ‘013. Sano, on the other hand, fails to teach or suggests, for example, that the control unit “reduces the target braking force for the noise generating wheel by a predetermined amount, and increases the target braking force for one of the front and rear wheels which is other than the noise generating wheel by the predetermined amount.” (See, e.g., claim 1.) To the contrary, Sano, alone or in combination with ‘013, cannot control noise without changing the distribution of braking force between the front and rear wheels and left and right wheels, respectively.

'013 and/or Sano, alone or in combination, fail to teach or suggest, for example, these elements recited in independent claims 1 and 4. It is respectfully submitted therefore that claims 1 and 4 are patentable over '013 and Sano.

For at least these reasons, the combination of features recited in independent claims 1 and 4, when interpreted as a whole, is submitted to patentably distinguish over the prior art. In addition, '013 and Sano clearly fail to show other claimed features as well.

With respect to the rejected dependent claims, applicant respectfully submits that these claims are allowable not only by virtue of their dependency from independent claim 1 or 4, but also because of additional features they recite in combination.

New claims 9 – 17 have been added to further define the invention, and are believed to be patentable for reasons including these set out above.

Applicants respectfully submit that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited prior art shown any of the elements recited in the claims. However, applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

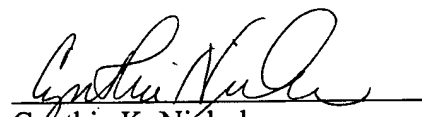
Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples applicant has described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, for the sake of simplicity, applicants have provided examples of why the claims described above are distinguishable over the cited prior art.

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In view of the forgoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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